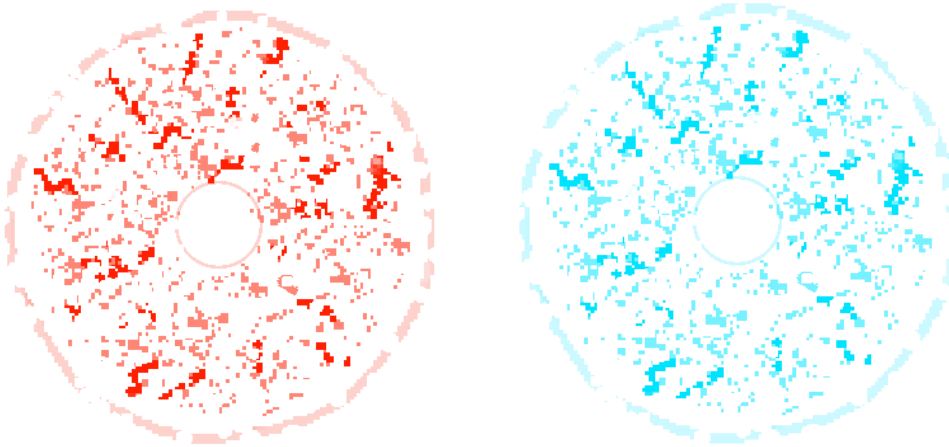


Arjun Bhatia

## **EMPClass emp.t**

### **Images**



Shown above are red and blue EMP images

### **Procedures**

#### **SetX (ipX : int)**

- ❖ Sets the X-coordinate of the EMP based on the inputted integer

#### **SetY (ipY : int)**

- ❖ Sets the Y-coordinate of the EMP based on the inputted integer

#### **SetAngle (ipAngle : int)**

- ❖ Sets the angle integer based on the inputted integer divided by 10

#### **SetColour (spColour : string)**

- ❖ Sets the colour of the EMP based on the inputted string

#### **Show**

- ❖ Draws the EMP based on the selected colour
- ❖ Plays a sound effect

## **Move**

- ❖ Adds the vertical distance to the Y-coordinate
- ❖ Adds the horizontal distance to the X-coordinate

## **Accelerate**

- ❖ Calculates a horizontal distance to move from the negative sine of the EMP's angle in degrees
- ❖ Calculates a vertical distance to move from the cosine of the EMP's angle in degrees

## **Banish**

- ❖ Places the EMP offscreen
- ❖ Stops the movement of the EMP

## **Functions**

### **GetX : int**

- ❖ Outputs the X-coordinate of the EMP as an integer

### **GetY : int**

- ❖ Outputs the Y-coordinate of the EMP as an integer

### **IsTouching (ipX, ipY : int) : boolean**

- ❖ Outputs false as a default
- ❖ Checks if the inputted integer location is within the radius of the EMP and outputs true

## **Defaults**

### **ConstructEMP (var opS : EMPClass)**

- ❖ Banishes the EMP
- ❖ Sets default colour of the EMP

### **DestructEMP (var opS : EMPClass)**

- ❖ Banishes the EMP

❖ Frees all variables